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■ ***The FOMC in 1992: A Monetary Conundrum***

A WEAK, HESITANT AND protracted recovery was under way during 1992. Real gross domestic product (GDP) did not regain its prerecession level until third quarter 1992, a year and a half after the recession's trough. On the whole, however, incoming data were less negative during 1992 than in 1991 and the Federal Open Market Committee (FOMC) generally displayed more confidence that the economy was growing in 1992.¹ As concern about a further economic downturn receded, troubling aspects of the monetary aggregates' behavior became more prominent in FOMC deliberations.

Since mid-1991, an unusual combination of very slow M2 growth and rapid growth of reserves and M1 has drawn considerable attention.² The juxtaposition of fast M1 and reserve growth and slow M2 growth was an important conundrum for policymakers in 1992: Was slow M2 growth constricting economic recovery (though slowing inflation at the same time), or was rapid M1 growth a signal of future inflationary pressure (though perhaps supporting rapid recovery)? These worst-case interpreta-

tions highlight the range of uncertainty raised by anomalous behavior of an important set of indicators.

The article begins with an outline of major economic developments in 1992 followed by an examination of the aforementioned monetary conundrum. These first two sections provide a backdrop for more detailed discussion in the third section of the eight FOMC meetings and policy actions taken between meetings. Because discussion of monetary policy often uses potentially ambiguous terms such as *easing*, I have included a shaded insert, "Translating the FOMC Policy Directives," which explains how some of these terms are used in FOMC directives and in discussions of monetary policy.

ECONOMIC DEVELOPMENTS IN 1992

A month-by-month account of economic developments makes it is easy to lose sight of broader patterns. Figure 1 illustrates some of these patterns. A wide-angle view reveals that

¹The FOMC comprises the seven governors of the Federal Reserve System, the president of the Federal Reserve Bank of New York, and, on a rotating basis, the presidents of four of the other 11 regional Federal Reserve Banks. The seven remaining presidents attend the meetings and present their views but do not vote.

²M1 comprises currency, traveler's checks and checkable deposits. M2 combines M1 with savings deposits, money market mutual funds, small time deposits, and some smaller items.

Translating the FOMC Policy Directives

The domestic policy directives issued by the FOMC in recent years have contained two parts. The first part summarizes available information about the economy that provides a context for the actions taken. The second part is a discussion of policy and the actual directive. In 1992 the directive used the following wording:

In the implementation of policy for the immediate future, the Committee seeks to _____ the existing degree of pressure on reserve positions. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, slightly greater reserve restraint _____ or slightly lesser reserve restraint _____ be acceptable in the intermeeting period.

The words that fill in the blanks are the keys to translating the directive. The first blank gives the main thrust of the directive. The choices here are *decrease* (known as easing), *increase* (known as tightening) and *maintain*. Interpretation of the first two choices is straightforward, but they were not used in 1992.

The second two blanks determine the so-called bias of the directive and are particular-

ly important when the main thrust is *maintain*. The choices for both the second and third blank are the words *would* and *might*. The key insight is that *would* is stronger than *might*. If the main thrust of the directive is *maintain* and the directive says that "slightly greater reserve restraint *might* or slightly lesser reserve restraint *would* be acceptable," the directive is referred to as *biased or asymmetric toward ease*. Pairing *might* with *might* or *would* with *would* gives a *symmetric directive*. Pairing *would* and *might*, is known as *biased or asymmetric toward restraint*. A directive that is biased toward ease is intended to give the Chairman somewhat more leeway in the direction of ease in the day-to-day implementation of policy between meetings. On some occasions there is an unusually strong presumption that the Chairman will act on the bias toward ease. See, for example, the discussion of the October 6 meeting in the text. This understanding is not included in the directive itself but is clearly stated in the record of Committee discussions.

The FOMC directives do not state how these somewhat imprecise words are translated into specific dollar sales or purchases of government securities, but in recent years, outside observers have regularly focused at-

the 1991-92 recovery was the slowest since World War II, with growth below the long-run average for several quarters and little employment growth. A narrower focus highlights the fact that the economy was substantially stronger in 1992 than in 1991 and that the second half of 1992 was substantially stronger than the first half, despite pessimistic expectations from midyear onward. An important feature of 1991 and 1992 was the dramatic fall of interest rates (see figure 2). A notable aspect of this decline was the sharp steepening of the yield curve; short-term interest rates fell much more than long-term rates. The increase in the rate spread between 10-year and three-month Treasury rates following the business cycle trough in

March 1991, for example, is larger than that in any postwar recovery period.

The U.S. economy ended 1991 with a whimper: GDP grew at an annual rate of less than 0.6 percent in the fourth quarter. The FOMC ended the year with a significant easing that coincided with a 1 percentage point cut in the discount rate.³ The federal funds rate then hovered around 4 percent until April (see figure 2). During the first months of 1992 new economic data suggested that the risk of sliding back into recession had receded; indeed it turned out that the economy grew at a 3 percent rate in the first quarter.

M2 started the year with a month of strong

³Throughout this article the terms *ease* and *easing* used in connection with specific policy actions have a narrow meaning that is spelled out in the shaded insert "Translating the FOMC Policy Directives." In other instances, *easy*

and *tight* are used in a more general way to refer to the overall stance of monetary policy, a much less well-defined concept.

tention on a federal funds rate target, or an *expected federal funds rate*, that helps the New York Bank implement the directive on a day-to-day basis.¹ An easing (tightening) action is taken relative to a particular reserve baseline (and the implied federal funds rate) settled on at an earlier date. The easing (tightening) action itself is a purchase (sale) of more Treasury securities than envisioned in the baseline and tends to decrease (increase) the federal funds rate.²

Whether monetary policy is *easy* or *easier* in a broader sense following an easing action is a complex issue. For example, despite 10 easing actions during 1991, 1992 still presented the monetary conundrum described in

this paper—was M2 growth sufficient?³

In the last two years the tilt of the directive has been important. As table 1 on p. 42 indicates, there has been only one easing directed by the main thrust wording, but under language asymmetric toward ease, the federal funds rate has fallen by several percentage points (figure 2). Several times in the last two years, significant changes in the federal funds rate have been associated with changes in the discount rate voted by the Board of Governors (the FOMC comprises the Board plus five of the presidents of the regional Federal Reserve Banks). See, for example, the discussion in the text of the easing action taken in early July.

¹A more comprehensive discussion of the relationship between the expected federal funds rate and other aspects of Federal Reserve operating procedures can be found in Sternlight et al. (1992).

²Banks and other depository institutions in the United States are required to keep reserves against certain kinds of deposits. The reserves can be in the form of vault cash or deposits with the Federal Reserve. When a bank finds itself short of reserves, it can borrow from the Federal Reserve at the discount window or from other banks in the federal funds market. The federal funds rate is determined by supply and demand in this market for reserves. Open market operations conducted by the Federal Reserve System change the supply

of reserves available to the market. When the System sells Treasury securities, it effectively takes reserves out of the system, decreasing supply. This tends to cause the federal funds rate to rise.

³The issue of judging the overall stance of monetary policy is discussed in Bullard (1992), p. 44.

growth but then began to decline. In April, falling M2, together with "indications that the economic expansion was not as strong as its pace early in the year," prompted an easing action.⁴ Immediately following this action, the federal funds rate fell substantially but then stabilized around 3.75 percent until the end of June.

Data for April and May were more positive, but many indicators for June (released around the beginning of July) led to a swing toward pessimism. Industrial production, employment, retail sales, M1 and M2 all tilted down. The

growth of real GDP had fallen to only 1.5 percent in the second quarter. Both the Board staff and private forecasters became more pessimistic about growth prospects for the second half of the year. The private sector Blue Chip consensus forecasts for GDP growth in the second half of the year made in June, July and August were 3.2 percent, 3.0 percent and 2.8 percent, respectively.⁵

At the beginning of July the Board of Governors cut the discount rate from 3.5 percent to 3.0 percent. This was accompanied by open

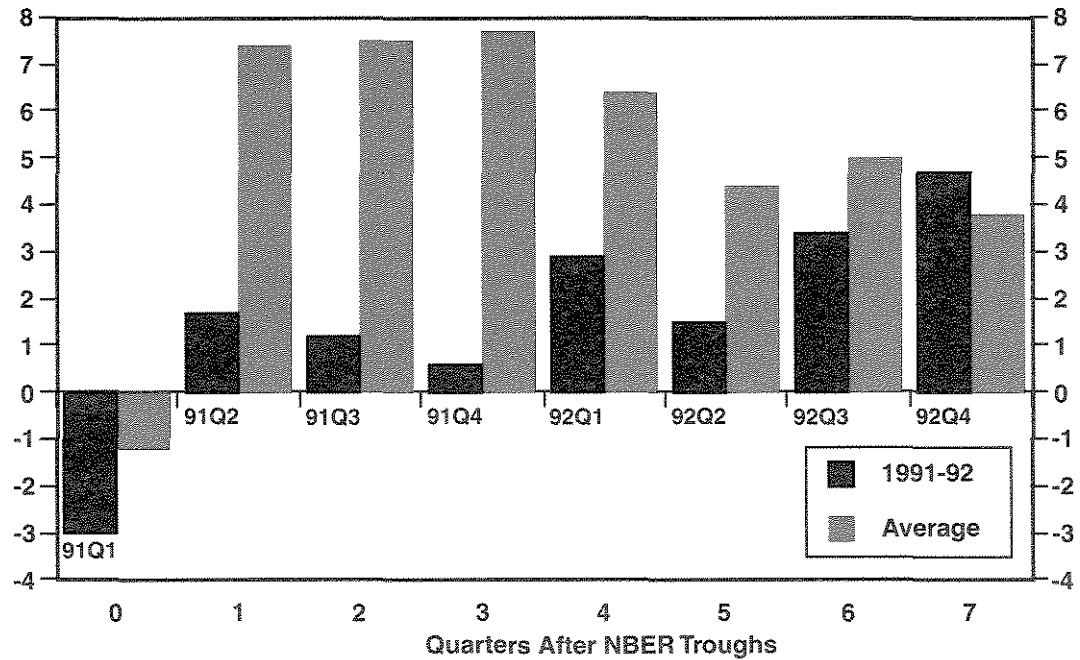
⁴See Federal Reserve press release July 2, 1992, p. 4. The press releases referred to in the remainder of this article are dated March 29, 1991; April 3, 1992; May 22, 1992; July 2, 1992; August 21, 1992; October 9, 1992; November 20, 1992; December 24, 1992; and February 5, 1993. All press releases will be referred to by date. Reserve requirements on transactions deposits were reduced from 12 percent to 10 percent on April 2. The reduction was intended to "strengthen the financial condition of banks and thereby

improve their access to capital markets, thus putting them in a better position to extend credit" (*Federal Reserve Bulletin*, April 1992, p. 272). The change apparently had no significant effect on monetary aggregates and no bearing on the decision to ease later in the month.

⁵See Eggert (1992).

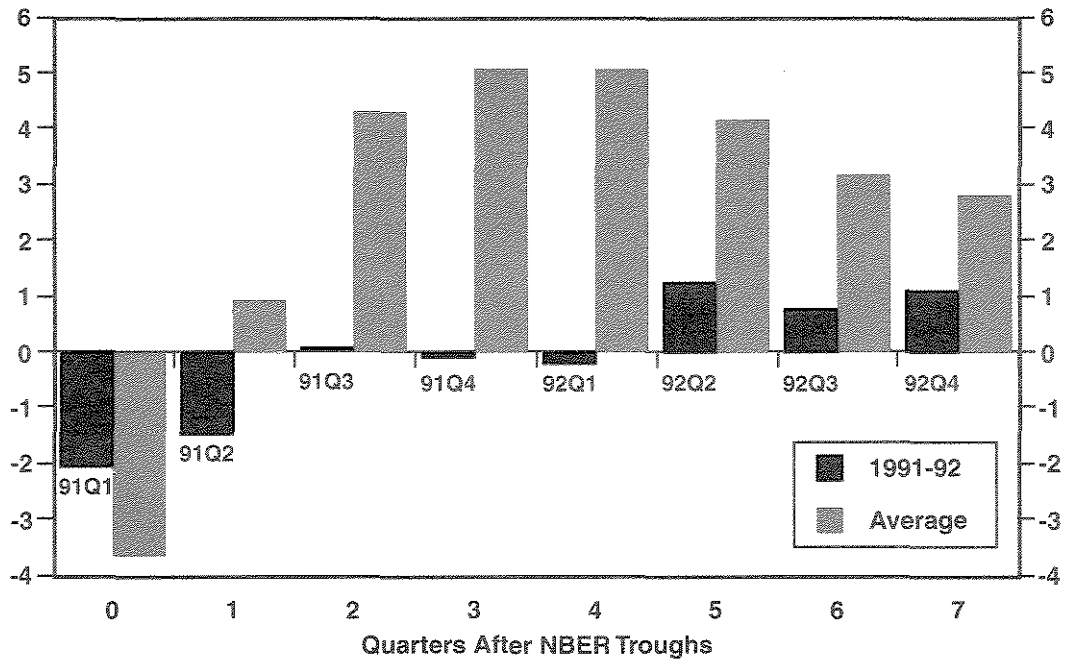
Figure 1
Growth of Real GDP During Recoveries

Seasonally Adjusted Annual Rates (in Percent)



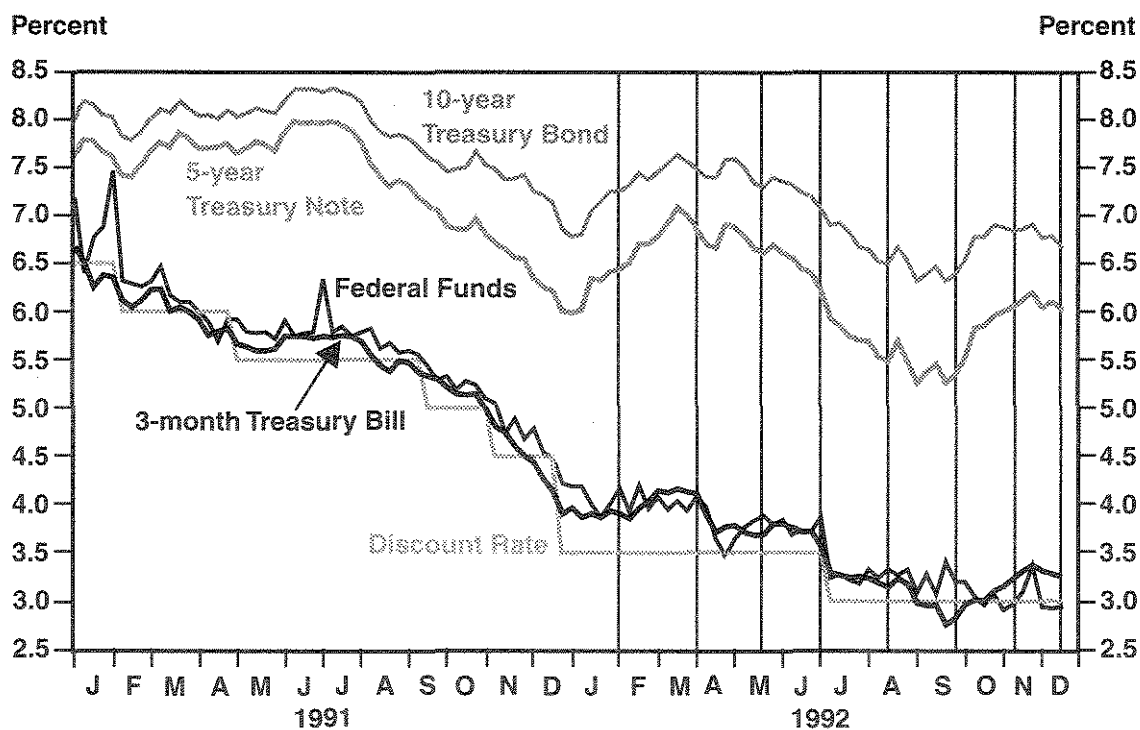
Growth of Nonfarm Payroll Employment During Recoveries

Seasonally Adjusted Annual Rates (in Percent)



Note: *Average* includes all postwar recessions before 1991 except the 1980 recession.

Figure 2
Interest Rates



Note: Vertical lines mark FOMC meeting dates.

market operations "directed at allowing the full amount of the reduction to be reflected in money market rates."⁶ The federal funds rate then fell about a 0.5 percentage point. The federal funds rate subsequently averaged about 3.25 percent until September. These two actions constituted the most significant policy move of the year.

Though many indicators turned up in July (and down again in August), M2 continued to fall despite the actions taken at the beginning of July. In response to the flagging M2 growth and to continuing signs of sluggish economic growth, another easing action was implemented in early September.⁷ The federal funds rate remained higher than expected following this action but settled down to around 3.0 percent by the end of October and remained there for the remainder of the year.⁸ Positive M2 growth resumed during the second half of the year, supported by rapid growth of reserves, but

turned negative again in December and into 1993.

The second half of 1992 is a case study in the difficulty of making policy on the basis of forecasts and month-by-month changes in economic data.⁹ The downturn that threatened at midyear never materialized; the economy grew at a 3.4 percent rate in the third quarter and 4.7 percent in the fourth. This was not apparent during the third quarter, however, and in fact private forecasters remained pessimistic until late in the year. The July and September easing actions were taken partly on the premise that the economy was weakening (and partly in response to flagging M2 growth), yet economic growth in the second half of the year ended up much stronger than during the first half of the year.¹⁰

THE MONETARY CONUNDRUM

During the past two years, M2 has grown slowly by past standards and has frequently

⁶October 9, 1992 press release, p. 4.

⁷November 20, 1992 press release, p. 4.

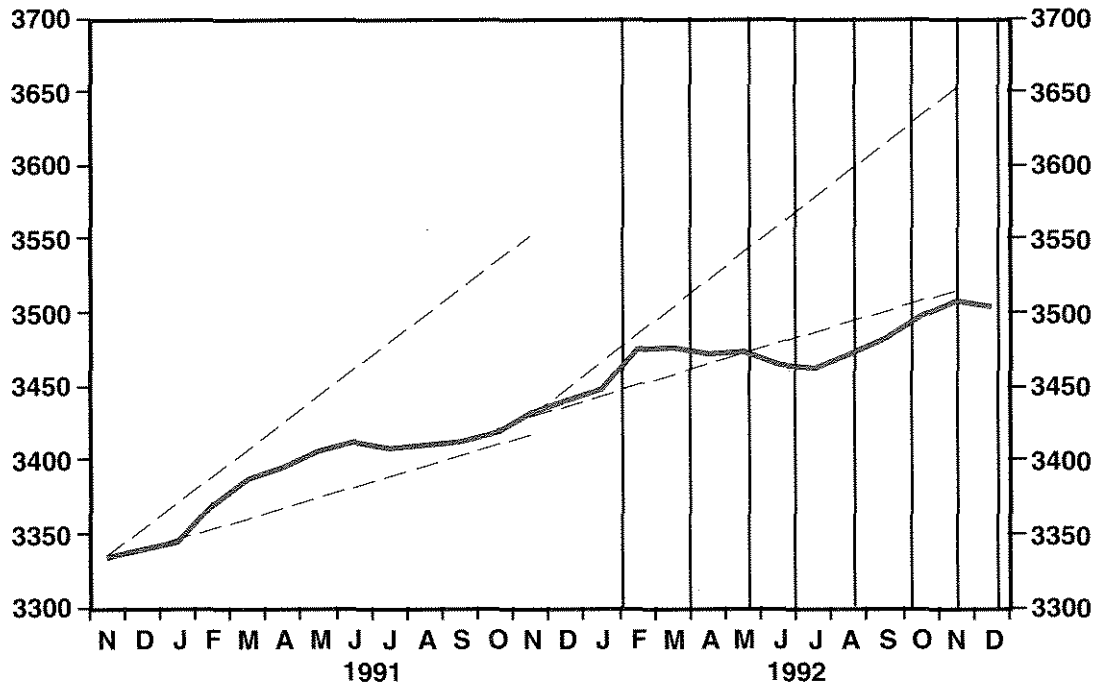
⁸November 20, 1992 press release, p. 4.

⁹This issue is treated extensively in Bullard (1992).

¹⁰Most estimates indicate that it takes at least six months for any effects of monetary policy actions to be apparent in the level of real output, so it is unlikely that strong growth in the second half of 1992 was the result of the July policy actions.

Figure 3
M2 and M2 Growth Ranges

Billions of Dollars, Seasonally Adjusted



Note: Vertical lines mark FOMC meeting dates. Pre-benchmark data.

been near or below the growth ranges set by the FOMC (see figure 3).¹¹ The slow overall growth of M2 has been accompanied by rapid growth of M1 and reserves (see figure 4). Reserve growth follows a pattern similar to M1, though at higher levels. From December 1991 to December 1992 M2 grew by 1.8 percent, M1 grew by 14.1 percent, and total reserves grew by 19.6 percent. Much of the difference between M1 and M2 growth rates can be traced to money market mutual funds and small time deposits (components of M2 but not of M1), which fell substantially during this period.

The FOMC's stated policy objectives are to "foster price stability and promote sustainable growth in output." Monetary aggregates, particularly M2, are closely monitored by the FOMC

partly because of their historically close relationship (by macroeconomic standards) with nominal GDP. The growth rate of nominal GDP is approximately equal to the growth of real GDP plus the inflation rate. Nearly all macroeconomists agree that money's long-run effect is almost entirely on the price level; that is, the only thing a central bank can do for the economy in the long run is to keep the inflation rate low. Though many macroeconomists argue that short-run economic growth can be bought at the expense of future inflation, almost all agree that higher growth induced in this way cannot be sustained in the long run.¹² The records of FOMC meetings indicate that Committee discussions take for granted that monetary policy has an effect on real economic activity in the short run.¹³

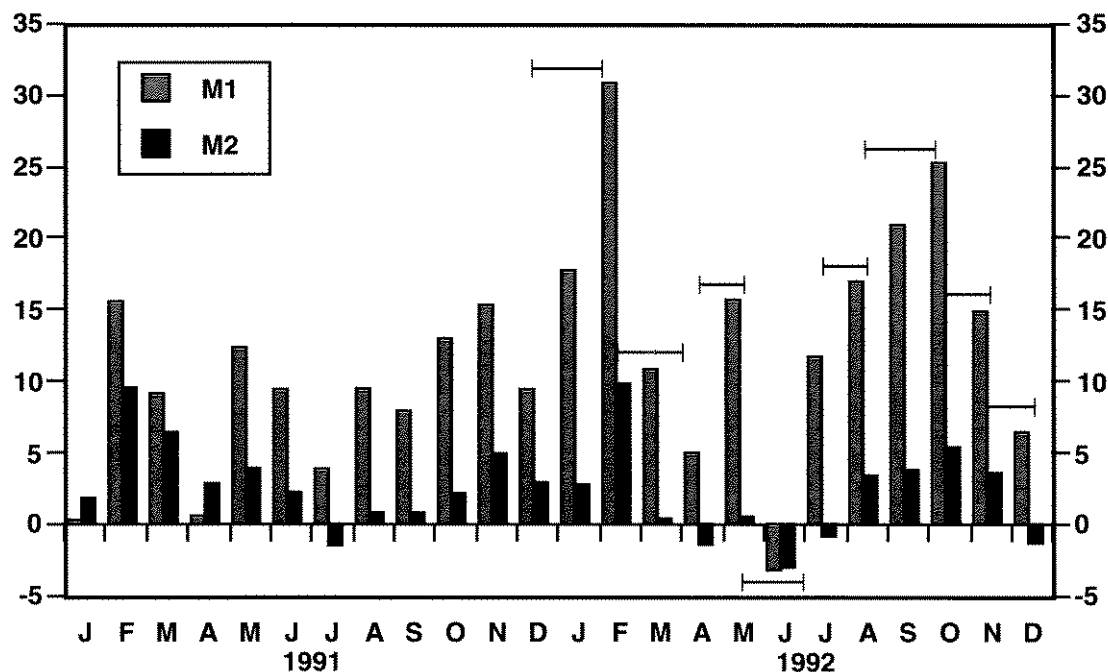
¹¹Data on the monetary aggregates were benchmarked at the end of 1992. All monetary data in both text and charts of this article are pre-benchmark data.

¹²Economists who agree with this statement as a theoretical proposition can be subdivided into those who think that monetary policy can help stabilize real GDP and those who think that the attempt is likely to be counterproductive in practice, even if it is possible in principle.

¹³The April 3 press release, for example, states, "The members generally agreed that enough monetary stimulus probably had been implemented to foster the desired upturn in economic activity ..." (p. 16).

Figure 4
Growth of M1 and M2

Seasonally Adjusted Annual Rates



Note: Horizontal bars indicate FOMC meetings (right end) and last available data (left end). Pre-benchmark data.

In recent years many economists and policymakers have agreed that it is desirable to use a monetary aggregate as an intermediate indicator of the thrust of monetary policy. Unfortunately, the economic theory underlying these conclusions is not specific enough to recommend the use of any particular monetary aggregate. An ideal monetary aggregate has a strong connection with policymakers' goals but is also closely related to their actions, primarily open market operations. No single aggregate has met both criteria consistently over time. For several years

the FOMC has paid closer attention to M2 because it has been a somewhat better indicator of the long-run growth of nominal income.¹⁴ The Federal Reserve has more direct influence over M1, however, because its checkable deposit component is closely tied to the level of reserves.¹⁵ That there is a tighter link between Federal Reserve actions and narrower aggregates such as M1 has persuaded some economists and policymakers to give relatively more weight to narrower aggregates in evaluating the stance of monetary policy.¹⁶

¹⁴During the early 1980s the FOMC paid close attention to M1. In 1982, they began to place more emphasis on M2 but still set M1 growth ranges. In 1987 they decided to quit setting M1 targets, citing "uncertainties about its underlying relationship to the behavior of the economy and its sensitivity to a variety of economic and financial circumstances." See Federal Reserve Board of Governors (1987).

¹⁵It should be noted, however, that one of the factors that led the FOMC to begin to de-emphasize M1 in the early 1980s was the difficulty in controlling the aggregate during a period of rapid deregulation and financial innovation.

¹⁶Members of the Shadow Open Market Committee (a group of academic and business economists not affiliated with the Federal Reserve System) have often expressed these views in their critiques of FOMC policy.

The juxtaposition of rapid growth of M1 and reserves with the slow growth of M2 was the monetary conundrum policymakers faced in 1992. Though the Committee no longer sets a target range for M1, this is more than an arcane technical issue: If the relationship between M2 and nominal GDP had broken down, the slow growth of M2 might be misleading, and the rapid growth of reserves and M1 might signal increasing future inflation. If not, the slowdown of M2 might reliably signal slow growth of nominal income that could endanger the economic recovery in the short run and cause deflation in the long run.

An observer who was convinced that the relationship between M2 and nominal GDP had not broken down, even temporarily, might argue that, though the growth of M1 and reserves was high by historical standards, it was inadequate and that monetary policy was not sufficiently expansionary. Another observer, convinced that there had been a breakdown of the link between M2 and nominal GDP, might argue that slow M2 growth was not a cause for concern, but that rapid M1 growth signaled future inflation. Most observers saw more uncertainty and found their own views somewhere between these extremes.

Why Did M2 Slow Dramatically?

Most hypotheses about the proximate causes of the slowdown in M2 growth point to changes in relative returns on M2 assets. Interest rates on assets included in the M2 aggregate but not in M1 fell relative to interest rates on other assets, and the public therefore preferred to hold these other assets. Portfolios were adjusted in two directions. Because the opportunity cost of holding transactions balances (mostly M1 assets) relative to other M2 assets had declined, the public could afford the convenience of larger transactions balances, thus increasing M1 while the non-M1 components of M2 declined. Perhaps most important was the movement in the other direction, from M2 assets, such as small time deposits, to higher-yielding alternatives not included in the M2 aggregate.¹⁷

The movement of interest rates on non-M1 components of M2 relative to other assets was caused partly by the sharp widening of the spread between short- and long-term interest rates (M2 assets tend to have relatively short

maturities) and partly by various factors that depressed M2 interest rates relative to those on other assets of comparable maturities. One of these factors may have been slack demand for bank loans. Firms and consumers faced with uncertain demand and income appeared reluctant to borrow at current interest rates. Banks, seeing the return on new loans little above Treasury yields, were unwilling to bid up deposit rates. The slack demand for bank loans may also reflect a long-run decline in depository institutions' share of total intermediation.

It has also been argued that various regulatory changes, including higher capital requirements, higher deposit insurance premiums and closer regulatory scrutiny of portfolios, have increased the cost of bank intermediation, driving a larger wedge between the rates charged and the rates paid by depository institutions.

Though the relevance of many of these factors has been apparent for several years, the lack of historical precedent has made it extremely difficult to predict the magnitude and duration of their influence on M2.

Did the Relationship between M2 and Nominal GDP Change?

The relationship between M2 and nominal GDP is summarized by M2 velocity, the ratio of nominal GDP to M2. If nominal GDP grows at the same rate as M2, velocity is constant. When nominal GDP grows more quickly (slowly) than M2, velocity increases (decreases). Historically M2 and nominal GDP have grown at approximately the same rate when averaged over long intervals. In the short run, when nominal GDP and M2 growth rates often differ, M2 velocity has usually moved in the same direction as the opportunity cost of holding M2 assets, as shown in figure 5. The opportunity cost measure shown is the difference between the three-month Treasury bill rate (representing assets not included in M2) and a weighted average of the interest rates paid on M2 assets. Simple economic reasoning suggests that, all else equal, as the true opportunity cost rises, consumers and businesses should decrease the quantity of M2 assets they hold. They may, for example, substitute Treasury bills, which are not in M2, for small time deposits, which are in M2. This substitution causes M2 to fall and M2 velocity to rise.

¹⁷One such high-yield alternative for many firms and consumers was to pay off or avoid debt.

Figure 5
M2 Velocity and Opportunity Cost

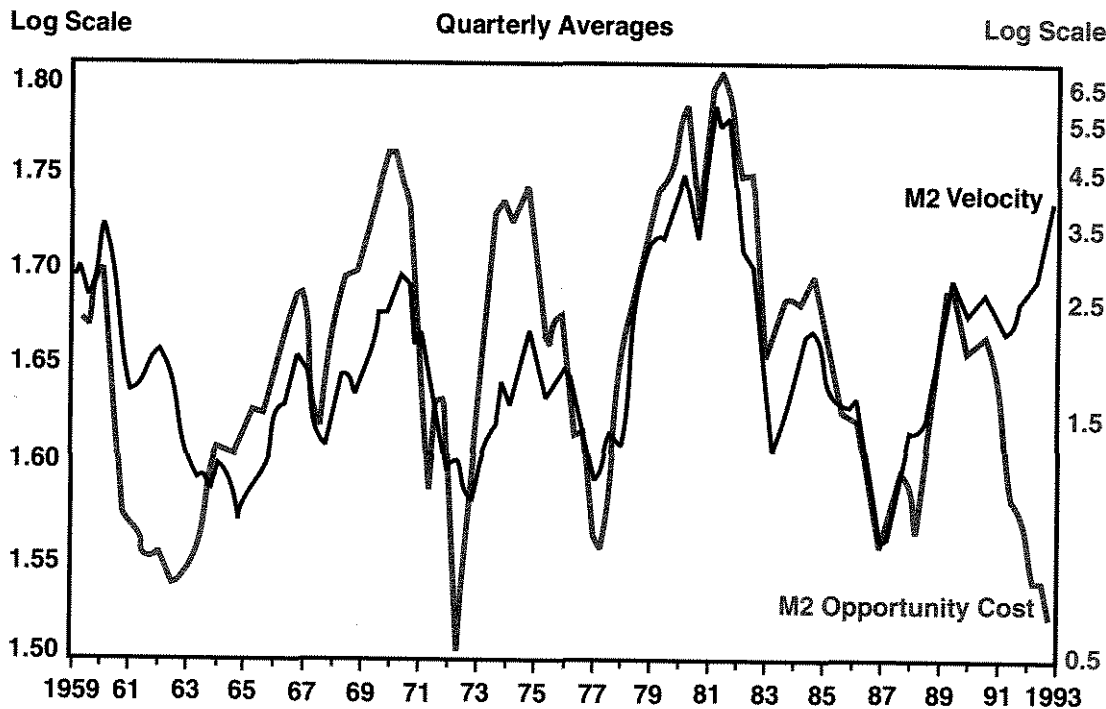


Figure 5 shows a substantial rise in M2 velocity during 1991 and 1992. This would not be particularly remarkable (several similar episodes are shown) except that the opportunity cost measure moved in the opposite direction. The unprecedented size and duration of the divergence of these variables have been interpreted as evidence that the relationship between M2 and nominal GDP may have changed. If this were true, it would then be difficult to discern the implications of the slow growth of M2. This uncertainty about the link between M2 and nominal GDP led some observers and policy-makers to give added weight to other variables in assessing the stance of monetary policy. Concerns about rapid M1 and reserve growth were reinforced by the general steepening of the yield curve during the year, which appeared to indicate market expectations of rising short-term interest rates. The expected increases could mean that the investors required a premium to

compensate for rising expected inflation or that economic recovery was expected to drive real interest rates higher. Either interpretation would imply that monetary policy had been sufficiently expansionary despite the evidence of slow M2 growth.

A different interpretation of the divergence between M2 velocity and opportunity cost is that the relationship has always been more complicated than figure 5 implies, but only recently has this become important.¹⁸ The breakdown in the relationship might be only an artifact of mismeasurement of the opportunity cost variable and does not necessarily imply a break between M2 and nominal GDP.

The argument starts by observing that in principle the entire spectrum of interest rates is germane to an individual's decision to hold a particular M2 asset. In the opportunity cost measure shown in figure 5 the three-month

¹⁸Feinman and Porter (1992) develop this argument in depth.

Treasury bill rate represents yields on all non-M2 assets. For the three-month rate to capture all of the relevant movements in these yields, interest rates on all non-M2 assets must move in parallel with it. Figure 5 shows that this approach has worked well historically, but changes in returns on non-M2 assets in recent years may no longer be summarized by movements in the Treasury bill rate. On this view the divergence between M2 velocity and the measure of opportunity cost shown in figure 5 does not indicate a breakdown in the long-run relationship between M2 and nominal GDP. Rather this implies that the recent rise in velocity—like previous episodes—is temporary, induced largely by the widening of the difference in yields on short- and long-term assets and the consequent failure of this measure to capture the true opportunity cost of M2. If so, M2 velocity may fall and M2 growth may accelerate when the difference narrows. However, wariness about short-run growth of M2 as an indicator of nominal GDP growth is still warranted.

One effort to implement this line of reasoning empirically by estimating an opportunity cost using a broader set of non-M2 yields concludes that “seen against the background of a more complete accounting of relevant interest rate margins, the recent behavior of M2 is not nearly as anomalous as suggested by the standard model.”¹⁹ The authors note, however, that their study does not entirely resolve the puzzle.

The FOMC did not take a radical position on the question of whether M2 was growing too slowly. Though the record of every 1992 meeting indicates substantial concern over this issue, every 1992 policy directive called for maintaining the “existing degree of pressure on reserve positions” (see table 1). On the other hand, the largest move toward ease occurred in early July after M2 fell below the lower bound of its growth range. Moreover, every easing action followed a period in which M2 declined or its growth fell significantly below expected levels.

Members of the FOMC expressed a range of views about whether the Fed should ease enough to ensure that M2 growth rebounded to the bottom of its growth range. Jerry Jordan, president of the Federal Reserve Bank of Cleveland, maintained that it is particularly important to

achieve M2 growth in the target range and voted against the proposed directive at two meetings for this reason. Governor Lawrence Lindsey joined him once in his dissent.

At the other end of the spectrum Governor John LaWare and the president of the Federal Reserve Bank of St. Louis, Thomas Melzer, voted against policy directives on four occasions because they felt that a bias toward ease was inappropriate during the second half of the year. They believed that slow M2 growth was sending a misleading signal and that earlier easing actions by the FOMC would be sufficient to support economic recovery, despite slow M2 growth.

DETAILED CHRONOLOGY OF FOMC ACTIVITY

The FOMC meets eight times each year. At the end of each meeting the Committee issues a directive to the Federal Reserve Bank of New York to guide open market operations until the next meeting. The Committee typically gives the Chairman some flexibility to initiate policy actions between meetings (during 1992 all actions were taken between meetings). These actions are sometimes agreed on during a conference call among the members, but this was not done during 1992.²⁰

A summary of each meeting, the record of policy actions, is released to the public shortly after the next meeting. The record is also published in the *Federal Reserve Bulletin*. The shaded insert explains some of the language used in the monetary policy directives and discussions of monetary policy.

The following summaries of FOMC meetings and policy actions between the meetings are intended to give a sense of the main concerns of the Committee and the information available at the time. In general the most recent economic information available to the FOMC is for a period that ended at least one month before the meeting. The main exceptions to this are interest rates, which can be observed daily, and some data that are collected and assembled by the Federal Reserve System—for example, components of the industrial production index and the monetary aggregates. Figure 6 shows some

¹⁹Feinman and Porter (1992), p. 21.

²⁰When such consultations take place, they are noted in the record of the next meeting. Less formal consultations may take place, but not be noted in the record.

Table 1
FOMC Directives and Measures of Monetary Policy Stance

Meeting	Main Thrust ¹	Intermeeting Stance toward		Change in Discount Rate	Change in Expected Fed Funds Rate ⁴	Growth ⁵ of M2	Growth ⁵ of M1
		Ease ²	Restraint ³				
1991							
February 5–6	maintain	would	might		–0.25	6.46	8.39
March 26	maintain	might	might	–0.5	–0.25	4.62	5.67
May 14	maintain	might	might			1.30	9.10
July 2–3	maintain	might	might		–0.25	–0.51	4.94
August 20	maintain	would	might	–0.5	–0.25	–1.66	6.66
October 1	maintain	would	might		–0.25	3.56	13.68
November 5	decrease	would	might	–0.5	–0.5	5.44	10.53
December 17	maintain	would	might	–1.0	–0.5	4.73	23.78
1992							
February 4–5	maintain	would	might			–1.13	6.93
March 31	maintain	would	might		–0.25	0.37	12.22
May 19	maintain	might	might			–2.79	–2.38
June 30–July 1 ⁶	maintain	would	might	–0.5	–0.5	2.35	14.80
August 18 ⁶	maintain	would	might		–0.25	4.93	27.69
October 6 ⁶	maintain	would	might			2.10	13.58
November 17 ⁶	maintain	would	might			0.52	8.48
December 22	maintain	would	would			–6.68 ⁷	5.06 ⁷

¹Directive says, “_____ existing degree of pressure on reserve positions.”

²Directive says, “slightly/somewhat lesser reserve restraint _____ be acceptable ...”

³Directive says, “slightly/somewhat greater reserve restraint _____ ... be acceptable ...”

⁴1991 data from table 3 of Sternlight et. al. 1992 data from table 3 of McDonough et al.

⁵Percent change at an annual rate from week of meeting to week before the following meeting.

⁶Some members voted against this directive. For details, see the discussion of this meeting in the text or the appendix.

⁷Based on post-benchmark data.

of the monthly economic data regularly considered by the Committee. Short horizontal lines in each chart illustrate the data lags faced by the Committee. (This device is used in figure 4 as well.) The right end indicates the meeting date and the left end shows last data available to the Committee at the time of the meeting. In addition to this delay, most data series are subject to revision after their initial release. Figure 6 plots the current revisions of the data, but significant inconsistencies between the original release and the revised data are noted below. Table 1 provides an overview of the direction of monetary policy during 1991 and 1992.

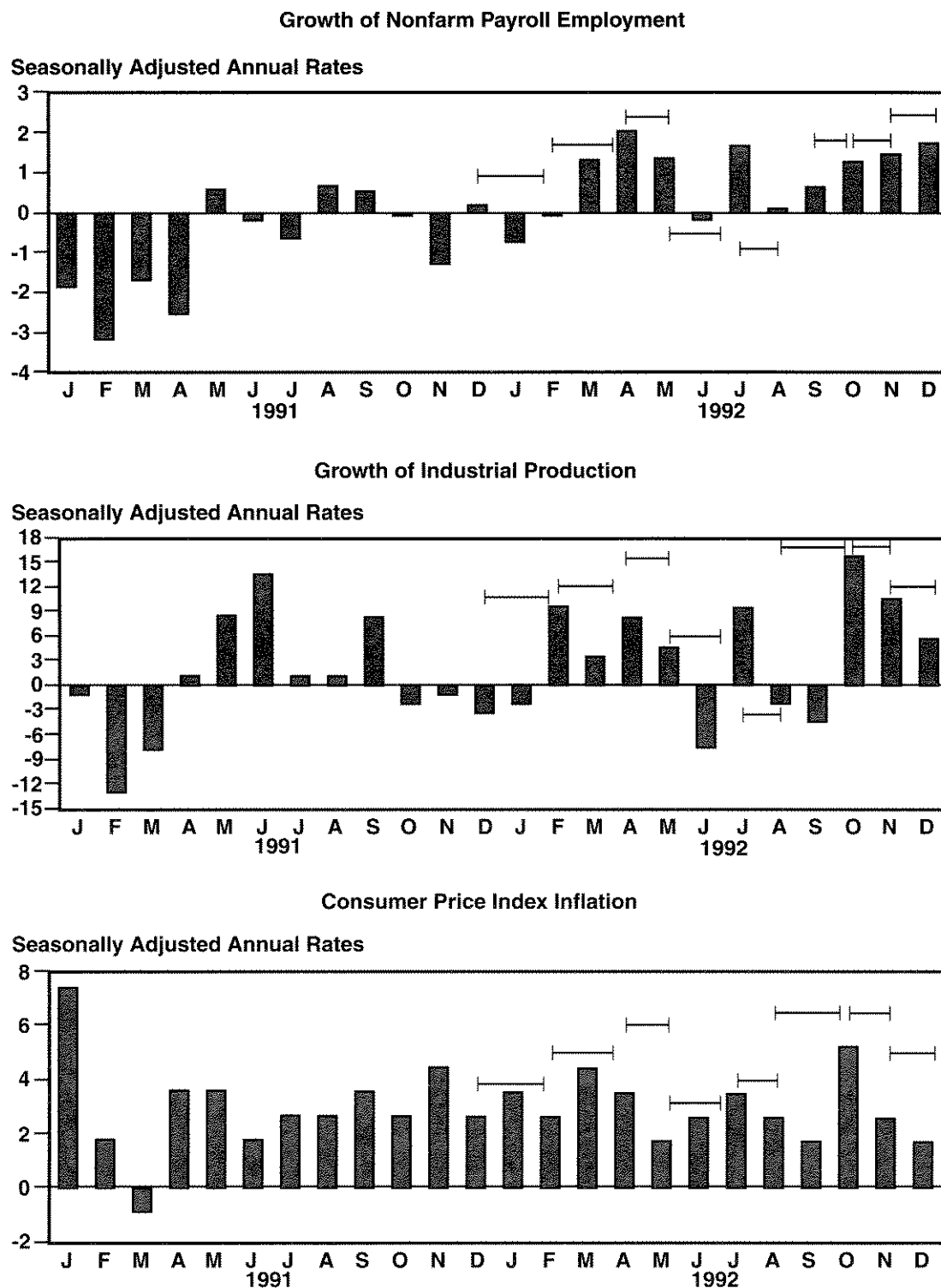
February 4–5, 1992, Meeting

The Committee's first task of the year was to set growth ranges for the monetary aggregates.

A growth range of 2.5 percent to 6.5 percent for M2 had been tentatively set in July 1991. For several years before 1991 the FOMC had been gradually lowering the range toward a level consistent with price stability. Several members expressed a preference for resuming this trend as a signal of the Committee's commitment to price level stability, though all found the current range acceptable. Because of puzzling recent behavior of M2 (discussed above), uncertainty was expressed over how monetary growth in these target ranges would affect economic activity and inflation. The members judged, however, that the 2.5 percent to 6.5 percent range would “provide adequate leeway and operational flexibility to accommodate a satisfactory economic performance.”²¹ They noted, however, that “the substantial uncertainties

²¹April 3, 1992 press release, p. 12.

Figure 6
Monthly Economic Indicators



Note: Horizontal bars indicate FOMC meetings (right end) and last available data (left end).

surrounding the outlook for M2 suggested that the Committee would have to approach monetary developments with a great deal of flexibility over the year ahead."²² Growth ranges of 2.5 percent to 6.5 percent for M2 and 1 percent to 5 percent for M3 were approved unanimously.

In setting policy for the weeks until the next meeting, there was clear consensus that no dramatic action should be taken, particularly since significant easing had been undertaken late in 1991. Nonetheless, the Committee expressed concern about the uncertain state of the economy. Though there were some positive signals, nonfarm payroll employment had been flat in December, and both retail sales and industrial production had fallen slightly in November and December.²³ The pace of inflation had continued to decline. The economic projection prepared by the Board staff predicted "a recovery of economic activity."²⁴

Some members expressed concern about the recent erratic behavior of M2. A staff analysis indicated that M2 could be expected to grow more rapidly given current conditions.

However, expansion of M2 probably would continue to be restrained by the aggressive reductions by depository institutions in their offering rates on deposit components of this aggregate and the continuation of related shifts of M2 funds into higher-yielding capital market instruments. In addition, the expected pickup in the pace of RTC resolutions over the balance of the first quarter would tend to moderate the growth of M2 and especially M3. To the extent that subdued growth of the broader aggregates were to reflect such special influences, there would not be significant adverse implications for the overall performance of the economy.²⁵

The Committee voted to maintain existing conditions in reserve markets but, with the possibility of deteriorating economic conditions in mind, voted for a bias toward easing.

March 31, 1992, Meeting

New economic data did not clarify the economic situation following the February 4-5 meeting. Nonfarm payroll employment dropped slightly in January but reversed itself in Febru-

ary. Industrial production followed a similar but more pronounced pattern. Strong retail sales and shipments of nondefense capital goods provided some bright spots in the January and February data. Prices were increasing at about the same rate as a year earlier. The economic projection prepared by the Board staff predicted "continued recovery in economic activity."²⁶ Reports on economic conditions in the 12 districts tended to support this point of view.

While short-term rates had held steady since the last meeting, longer-term rates jumped substantially, particularly at intermediate maturities (figure 2). In the apparent absence of an intended or unintended action raising short-term rates, the Committee viewed the jump as a sign that markets were interpreting other economic news as evidence of growing economic momentum.²⁷

The Committee was troubled by the renewal of weak M2 growth. After significant easing late in 1991, M2 growth was relatively robust in January and February, but it appeared that M2 had quit growing or possibly declined in March (data for the end of March were not yet available), contrary to expectations at the previous meeting. Some members were concerned that slow growth of M2, should it continue, "could signal that monetary policy was not positioned to support a satisfactory expansion."²⁸ Some observed that it was the behavior of M2 and M3 rather than economic conditions that persuaded them in favor of bias toward ease in the directive.²⁹

The Committee unanimously adopted another directive biased toward ease, though a minority of members would have favored a symmetric directive in view of evidence of a strengthening economy. The majority, however, "remained concerned about the vulnerability of the expansion to a variety of risks."³⁰

April Easing

In early April it became clear that M2 had in fact begun to decline during March. Together with "indications that the economic expansion was not as strong as its pace early in the year" this led to a decision to ease monetary condi-

²²April 3, 1992 press release, p. 13.

²³Later revisions indicate a slight increase in retail sales.

²⁴April 3, 1992 press release, p. 6.

²⁵April 3, 1992 press release, p. 18.

²⁶May 22, 1992 press release, p. 5.

²⁷May 22, 1992 press release, p. 4.

²⁸May 22, 1992 press release, p. 12.

²⁹May 22, 1992 press release, p. 13.

³⁰May 22, 1992 press release, p. 11.

tions in early April.³¹ Besides M2, retail sales was the only prominent economic indicator that turned down. Employment and industrial production both rose during March. After this easing action the federal funds rate fell more than 0.5 percentage points from around 4.0 percent, but it eventually stabilized around 3.75 percent.

May 19, 1992, Meeting

Payroll employment and industrial production increased through April, continuing the trend started at the beginning of the year. Retail sales rebounded from a March drop, and there was evidence that fixed investment was picking up after an April drop in shipments.³² The staff projection was again "continuing recovery."³³ Overall, the evidence suggested a modest recovery with a broad base across regions and industries.

Once again the behavior of the monetary aggregates was a central focus of concern. Both M2 and M3 contracted during March and from March to April, leaving them below the levels expected by the Committee at its March 31 meeting.³⁴ Though many thought that temporary technical considerations accounted for part of this decline, some Committee members regarded the weakness of M2 and M3 as "indicative of an increase in the downside risks to the expansion."³⁵ Others felt instead that "a variety of developments ... seemed to have altered previous relationships between M2 and M3 and measures of spending and income."³⁶ Therefore "satisfactory economic expansion would tend to be consistent with weaker growth and a higher velocity of M2 than would be suggested by historical relationships."³⁷ Some members felt in addition that "the strength of M1 and reserves ... could raise questions about the consistency of current monetary policy with progress toward price stability."³⁸

Though some members would have preferred bias toward ease, whereas others preferred to tilt the directive toward restraint, the Committee agreed unanimously on a policy of unchanged pressure in reserve markets with symmetric language.

June 30–July 1, 1992, Meeting

Through May, payroll employment and industrial production continued the weak upward trend started at the beginning of the year, suggesting that expansion continued at a very modest pace. However, "recent information suggested some weakening in the expansion."³⁹ Growth of consumption expenditures in particular had slowed significantly. The staff projection predicted a "modest pickup in economic growth over the second half of the year."⁴⁰ Members reported that the expansion continued to be geographically broadly based, though there were significant exceptions, notably California.

The growth of M2 and M3 was still weak in May, and available information for June indicated contraction, leaving the aggregates below the lower end of the growth ranges.

The policy record indicates that at the June 30–July 1 meeting, FOMC members had more diverse opinions about policy for the immediate future than at the May meeting. Some members preferred an immediate easing of policy. Of those who preferred easing, some emphasized "the recent indications of some slowing in the expansion and the already considerable slack in the economy," whereas others highlighted "the desirability of taking relatively prompt action to foster growth in the broad measures of money within the Committee's ranges for the year."⁴¹ The Committee voted to return to a directive biased toward ease. John LaWare and Thomas Melzer objected to the asymmetric directive because "the current stance of monetary policy was not impeding an expansion consistent with the economy's long-run potential"⁴² and because in the context of the previous symmetric directive it "suggested an excessive emphasis on short-term economic developments that might undermine the credibility of the System's long-run policies."⁴³

The Committee also reaffirmed the 1992 growth ranges for M2, M3 and total domestic nonfinancial debt and tentatively decided to maintain the same growth ranges for 1993.

³¹July 2, 1992 press release, p. 4.

³²Revised retail sales data show a slight decline in April.

³³July 2, 1992 press release, p. 6.

³⁴July 2, 1992 press release, p. 6.

³⁵July 2, 1992 press release, p. 11.

³⁶July 2, 1992 press release, p. 11.

³⁷July 2, 1992 press release, p. 12.

³⁸July 2, 1992 press release, p. 12.

³⁹August 21, 1992 press release, p. 7.

⁴⁰August 21, 1992 press release, p. 5.

⁴¹August 21, 1992 press release, p. 17.

⁴²August 21, 1992 press release, p. 21.

⁴³August 21, 1992 press release, p. 21.

July Easing

The day after the FOMC meeting (July 2) the Department of Labor reported that payroll employment had fallen by 117,000 (1.3 percent at an annual rate) in June after four months of slow growth.⁴⁴ Also on July 2 the Board of Governors voted to lower the discount rate from 3.5 percent to 3.0 percent, and open market operations were implemented to let the federal funds rate fall by a comparable amount.⁴⁵ Figure 2 shows that the federal funds rate, which had hovered around 3.75 percent, fell sharply to about 3.25 percent. There was no telephone conference regarding this change in the intermeeting policy.

August 18, 1992, Meeting

At its August 18 meeting, the Committee concluded that though expansion continued, its pace had slowed.⁴⁶ July payroll employment had reversed the June decline, but both numbers were propped up by temporary hiring in a new federally sponsored summer jobs program. Industrial production followed the same pattern—recovery in July from a June drop. Retail sales increased moderately in July following a second-quarter slowing, while shipments of nondefense capital goods rose sharply in June. Market interest rates at all maturities fell substantially during July following the easing action but probably also reflected the sluggishness of the expansion. The staff projection pointed to a continuing pattern of “subdued economic expansion.”⁴⁷ Some members noted that “they could not identify any sector of the economy that seemed primed to provide the impetus needed for a vigorous expansion,” though they noted “considerable progress ... toward redressing earlier over-expansion and credit excesses.”⁴⁸

Members expressed considerable optimism about the inflation outlook, citing “increasingly persuasive evidence of slower rates of increase in wages and prices.”⁴⁹

The monetary aggregates remained an important concern. M2 and M3 contracted further in July and continued below the lower end of the

growth ranges. Following the easing in early July, M1 (which had fallen during June) began a period of rapid growth in July.

Some members felt further easing was in order, but a majority favored an unchanged policy that recognized the potential for conditions warranting easing. The behavior of the broad monetary aggregates was regarded as a significant factor “in favor of careful consideration of” further easing.⁵⁰

A directive biased toward ease was adopted with support from some members who favored a symmetric directive. John LaWare and Thomas Melzer voted against this action citing reasons similar to those mentioned in their previous dissent.

September Easing

In early September, after slower-than-expected response of M2 to the July easing and economic data (including a sharp increase in initial unemployment insurance claims) that continued to indicate sluggish economic growth, an easing action was implemented. For technical reasons the federal funds rate remained higher than expected following this action, but it settled to around 3.0 percent by the end of October.⁵¹

October 6, 1992, Meeting

The policy record for the October meeting gives a picture of economic developments very similar to that from the previous meeting—“economic activity was expanding at a subdued pace.”⁵² Nonfarm payroll employment fell slightly in August and again in September, though the latter partly reflected the end of the summer jobs program mentioned above.⁵³ Industrial production fell in August and partial information for September “suggested further weakness.” Consumption seemed to have slowed through August after a period of robust growth. Shipments of nondefense capital goods slowed during July and August, a sign of possible renewed weakness in investment. The staff projection “indicated that economic activity would expand at a slow pace in the current

⁴⁴See U.S. Department of Labor (1992). Revised data show a less substantial fall of 0.18 percent.

⁴⁵October 9, 1992 press release, p. 4.

⁴⁶October 9, 1992 press release, p. 1.

⁴⁷October 9, 1992 press release, p. 6.

⁴⁸October 9, 1992 press release, p. 8.

⁴⁹October 9, 1992 press release, p. 10.

⁵⁰October 9, 1992 press release, p. 12.

⁵¹November 20, 1992 press release, p. 4.

⁵²November 20, 1992 press release, p. 1.

⁵³Subsequent revision to the employment data made the September drop into a slight rise as shown in Figure 6. November 20, 1992 press release, p. 1.

quarter" but would pick up gradually in 1993.⁵⁴ Many members again worried that, "No important sector of the economy seemed poised to provide much impetus to business activity ..."⁵⁵ Several members felt that recent volatility in some asset markets, particularly the foreign exchange market, underscored the risks of potentially adverse developments.⁵⁶ On the plus side they noted that declines in the dollar and domestic interest rates "suggested improved conditions for greater expansion."⁵⁷ The inflation outlook continued to be favorable.

M2 and M3 began to grow again in August, but only slowly. The weak growth appeared to have continued into September, and both aggregates were expected to finish September below the bottom end of the growth range.

The same range of opinions on policy for the immediate future was expressed. The policy record, however, indicates a clear shift toward ease in the balance of members' opinions. Though the policy directive contains exactly the same wording stating a bias toward ease, the record indicates that a majority of the Committee supported a directive "strongly" biased toward possible ease, with "a decided presumption of some easing," and with "a marked bias toward possible easing."⁵⁸ Four members voted against the directive. John LaWare and Thomas Melzer favored a symmetric directive for the reasons stated at previous meetings, adding their concern that an easing action might destabilize the dollar.⁵⁹ Mr. Melzer was also concerned that continued rapid M1 growth might jeopardize progress toward price stability. Two other Committee members, Jerry Jordan and Governor Lawrence Lindsey, favored immediate easing sufficient to "achieve the Committee's pre-announced target growth for M2."⁶⁰ They indicated that this action should be accompanied by an announcement that the growth range would be lowered in 1993 to signal that the easing did not indicate a discounting of the FOMC's goal of price stability.

November 17, 1992, Meeting

More optimism about the pace of economic activity was evident at this meeting: "economic activity had been expanding at a moderate pace."⁶¹ Nonfarm payroll employment had risen slightly in October following two months of declines. Industrial production rose in October "following a modest increase in the third quarter."⁶² (The July increase had offset slight declines in August and September.) Stronger retail sales in September and October, stronger housing sales and starts, and anecdotal evidence all suggested stronger overall consumption spending. Another strong increase in outlays for producers' durable equipment in the third quarter implied renewed strength in investment. Increasing interest rates, particularly at intermediate maturities, suggested that the more optimistic outlook was shared by financial markets. The staff projection "suggested a continuing expansion in economic activity."⁶³ In discussion "the members indicated that they were encouraged by the somewhat more positive tone in the latest economic reports and by the signs of improving business and consumer confidence."⁶⁴

M2 growth picked up in October. Combined with the more favorable economic reports, this had deterred a move toward ease despite the strong presumption in favor of ease at the October meeting. Further easing had been expected by financial markets, and correction of this expectation was regarded as partly responsible for the rise in interest rates.

Many members preferred a symmetric policy for the upcoming weeks, believing that "risks to the expansion were now fairly evenly balanced."⁶⁵ Others still preferred a bias toward ease, but without the strong presumption understood at the previous meeting. The Committee once again adopted a directive biased toward ease. Jordan, LaWare and Melzer voted against this action for reasons similar to those expressed at the previous meeting.

⁵⁴November 20, 1992 press release, p. 6.

⁵⁵November 20, 1992 press release, p. 7.

⁵⁶The European Exchange Rate Mechanism collapsed on September 16.

⁵⁷November 20, 1992 press release, p. 7.

⁵⁸November 20, 1992 press release, pp. 10, 11 and 13.

⁵⁹November 20, 1992 press release, p. 16.

⁶⁰November 20, 1992 press release, p. 15.

⁶¹December 24, 1992 press release, p. 1.

⁶²December 24, 1992 press release, p. 1.

⁶³December 24, 1992 press release, p. 6.

⁶⁴December 24, 1992 press release, p. 7.

⁶⁵December 24, 1992 press release, p. 13.

December 22, 1992, Meeting

As figure 1 indicates, real GDP rose significantly in the third quarter and the available evidence for the fourth quarter indicated that this pattern was continuing. Nonfarm payroll employment again rose slightly in November. Industrial production also increased. Retail sales rose sharply through November, and sales and starts of single-family homes showed sizable growth.⁶⁶ Shipments of nondefense capital goods continued to expand. Yields on long-term bonds fell, but this was attributed to favorable market reaction to "indications that the incoming Administration would give emphasis to reducing the federal budget deficit over time," rather than to the weakening recovery.⁶⁷ The staff projection "suggested a continuing expansion in economic activity" but also indicated that the momentum of the expansion would be partly offset by weaker export demand.⁶⁸ Reports from most regions reinforced a picture of "increasingly robust business conditions," though there were notable exceptions, again including California.

M2 slowed once again in November, and this weakness appeared to continue into December. A staff analysis pointed to sluggish growth of M2 and M3 and substantial slowing in the growth of M1 during the coming months.

The Committee felt that recent positive developments warranted "a shift toward a more balanced approach to possible intermeeting changes in policy."⁶⁹ Though noting considerable uncertainty about the future course of the economy, "members observed that the next policy move might be in either direction."⁷⁰ Despite the slower M2 growth, a symmetric directive was unanimously adopted.⁷¹

SUMMARY

For much of 1992, stronger economic performance seemed just around the corner. Three times during the year, in April, July, and Sep-

tember, combinations of faltering M2 growth and possibly slowing economic activity prompted easing actions. The July action accompanied a half-point discount rate reduction. The economy was growing fairly quickly by the end of the year, despite forecasters' midyear pessimism.

Although the FOMC devoted a good deal of attention to anomalous behavior of M2, the aggregate ended the year slightly below the lower end of its growth range. Various factors led to doubt about the reliability of M2 as an indicator of economic activity and inflation, but the implications of slow M2 growth combined with rapid growth of reserves and M1 during 1992 are not yet known.

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⁶⁶A later revision of the data shows a fall in retail sales in November.

⁶⁷February 5, 1993 press release, p. 10.

⁶⁸February 5, 1993 press release, p. 6.

⁶⁹February 5, 1993 press release, p. 12.

⁷⁰February 5, 1993 press release, p. 12.

⁷¹The language of the directive differed slightly from the May directive. See table 1.

Appendix

FOMC Dissents

This appendix contains the exact text of members reasons for voting against FOMC directives.

February 4–5, 1992

No dissents.

March 31, 1992

No dissents.

May 19, 1992

No dissents.

June 30–July 1, 1992

Messrs. LaWare and Melzer dissented because they judged an asymmetric directive, with a bias toward easing, as being inappropriate at this time. In their view, the current stance of monetary policy was not impeding an expansion consistent with the economy's long-run potential. In addition, a bias toward ease, especially in the context of the Committee's decision at the May meeting to adopt a symmetrical directive, suggested an excessive emphasis on short-term economic developments that might undermine the credibility of the System's long-run policies. They were concerned that such a loss of credibility could have adverse effects on the dollar in foreign exchange markets and on long-term interest rates in domestic markets. Mr. Melzer also believed that, if additional easing were undertaken, a greater policy reversal ultimately would be necessary, making the attainment of sustainable economic growth more difficult in the long run.

August 18, 1992

Messrs. LaWare and Melzer dissented because they did not favor a directive that was biased toward possible easing during the intermeeting period. In their view, monetary policy already was appropriately stimulative, as evidenced in part by the low level of short-term interest rates and by the rapid growth in reserves since early this year, and was consistent with the promotion of economic growth in line with the economy's long-run potential. Business and consumer confidence were in fact at low levels, but they reflected a variety of problems facing the economy that were unrelated to the stance of monetary policy. Accordingly, what was needed

at this point was a more patient monetary policy—one that was less predisposed to react to near-term weakness in economic data and that allowed more time for the effects of earlier easing actions to be reflected in the economy. Indeed, an easing move in present circumstances might well stimulate inflationary concerns by reducing confidence in the System's willingness to pursue an anti-inflationary policy and thus could have adverse repercussions on domestic bond markets and further damaging effects on the dollar in foreign exchange markets.

October 6, 1992

Messrs. Jordan and Lindsey preferred immediate action by the Committee to increase the availability of bank reserves sufficiently to achieve the Committee's pre-announced target growth for M2 in 1992. Such reserve provision would likely be associated with further declines in short-term market interest rates. They believed that this policy action by the Committee should be accompanied by an announcement of reductions of the upper and lower limits of the range for M2 growth in 1993. They felt that it was important to make clear that near-term action to increase M2 expansion was not an abandonment of the long-term objective of non-inflationary monetary growth.

Messrs. LaWare and Melzer dissented because they did not want to bias the directive toward possible easing during the intermeeting period. In their view, a variety of indicators, including the level of short-term interest rates and the growth of reserves, suggested that monetary policy already was positioned to foster an expansion in economic activity consistent with the economy's long-run potential. Moreover, further easing at this time would incur a substantial risk of destabilizing the dollar in the foreign exchange markets. In these circumstances, they favored a steady monetary policy that was not disposed to react to near-term weakness in economic data and that allowed more time for the effects of earlier easing actions to be felt in the economy. Mr. Melzer also expressed concern that the progress already made toward achieving price stability might be jeopardized if very rapid growth in M1 were to continue.

November 17, 1992

Mr. Jordan dissented because he preferred taking immediate action to increase the availability of bank reserves sufficiently to raise M2

growth to a pace more consistent with the Committee's annual range. Because desirable M2 expansion in line with the Committee's objectives would be likely to fall within a lower range next year, he would announce concurrently a reduction in the 1993 range to make clear that near-term action to increase M2 expansion was not an abandonment of the long-term objective of non-inflationary monetary growth.

Messrs. LaWare and Melzer dissented because they did not want to bias the directive toward possible easing during the intermeeting period. In their view, recent developments pointed to a strengthening economy, and they favored a steady policy that was not predisposed to react to near-term weakness in economic or monetary data. More time was needed to evaluate the effects of prior monetary policy actions, and they

were concerned that the adoption of a more stimulative policy over the near term might well establish a basis for greater inflation later. Mr. Melzer was concerned that rapid growth in total bank reserves, the monetary base, and M1 over the last two years might already have laid a foundation for accelerating nominal GDP growth and a reversal of the disinflationary trend. In addition, he noted that policy errors can easily be made at this stage of the business cycle. In an economic expansion, efforts to resist increases in the federal funds rate through large reserve injections eventually lead to higher inflation and higher nominal interest rates.

December 22, 1992

No dissents.